



HOME LEARNING

YEAR 6

22/06/2020 - 26/06/2020

Weekly Message

Good morning year 6,

We hope you had a lovely weekend and are ready for another week of home learning. We are looking forward to seeing some of you next week. Please make sure you read the 'reading' section below to see some changes this week.

Here's a riddle for the week: *Which word contains 26 letters but only has 3 syllables?*

And a joke: *Did you hear about the cross-eyed teacher? He couldn't control his pupils.*

Have a great week,

Mr Larke and Ms Yerlisu

Weekly Writing



This week we will be writing information leaflets on keeping fit. Maybe we could give these leaflets to our family members to inspire them to keep fit and healthy.

Our leaflets will have two purposes:

- to persuade the reader to undertake exercise
- to inform the reader about different types of exercise.

Here is an example of such a leaflet about cooking healthy food. It tells the reader *why* to cook healthy food and gives information about different types.

The Wonderful World of Wholesome, Healthy food

The year is 2020 ladies and gentlemen. We have known for a very very long time that it is extremely important to eat healthy foods. Yet many of us are still munching happily away on cakes, biscuits and crisps. Why is this? Probably because people think healthy food is boring: it's not! Possibly because people think healthy food is difficult: it's not! Potentially because people think that healthy food is expensive: it doesn't have to be! Healthy foods are good for our hearts, brains and muscles. They give us energy, help us to sleep and make us grow stronger. We really should start eating them more! This leaflet will give to lots of information about a variety of healthy foods and how you can introduce them to your life.

Note: I have used an informal style to engage the reader and build a connection with the reader in this paragraph

Proteins

Proteins are an essential nutrient for humans. They are necessary for your body to build muscle and can also serve as energy. Containing essential amino acids, they can be found in a range of different foods such as meat, dairy, fish and a variety of plant sources. More and more research is indicating that a diet high in protein and lower in carbohydrates keeps the human body healthier and decreases the chance of diabetes.

Note: I have used scientific/technical vocabulary and a more formal style to sound knowledgeable in this paragraph

So what's stopping you from introducing more protein in your life!? For all the meat-eaters out there, chicken and turkey dinners are healthy, protein-packed bundles of loveliness. What about you vegetarians and vegans? Pulses, cereals, nuts and vegetables are packed with the stuff so get munching!

Here is a recipe for a protein-high vegetarian lunch....

Note: I have reverted to the more informal style here to persuade the reader.

Monday LO: To plan an information leaflet

Today, we will be deciding on the sections we wish to include in our leaflet.

Decide on 3 or 4 different sections. Here are some potential ideas: strength exercises, cardio exercises, flexibility exercises, team sports, individual sports. We are sure you can think of even more.

Your job today is to brainstorm ideas/vocabulary you might use for each of your sections.

Here is an example of some words I might brainstorm for a section on 'Exercise you can do alone'

Exercise you can do alone

keepy uppies – fantastic fun, balance, co-ordination, control
press-ups – triceps, biceps, power, upper-body strength
skipping – aerobic, heart pumping, blood flowing, quadriceps,

Task: choose 3 exercises and brainstorm vocabulary for each under a heading

Tuesday LO: To write an introduction to our leaflet

We will write a short introduction today which will tell the reader *why* to exercise. Look again at the example from yesterday about why to eat healthily.

Write LO: To write an information leaflet

Carry on writing underneath this LO all week, without writing new LOs every day.

Firstly, write a title for your leaflet and underline.

Then, write a detailed introductory paragraph underneath. You might include:

- how exercise is good for our body
- how exercise is good for our mind
- how it is good for the planet (riding to school rather driving, for example)
- fun thing to do with friends

Tips for success:

- engage the reader and make them feel excited about exercise
- use an informal, colloquial style to connect with the reader
- use appealing descriptive vocabulary

Wednesday and Thursday LO: To write sections of information leaflet

Today and tomorrow we will write the content for 3 or 4 different sections on exercise. You will need to include a sub-heading for each.

Example for exercise You Can Do at Home. I will use the words I brainstormed on Monday.

Exercise you can do at home

Many people put off starting exercise: "Oh, I don't have the time to start" or "I can't afford to pay for a gym membership". But they are forgetting about all the simple yet fabulous workouts that can be done from the comfort of your own home. You don't need to spend hundreds of pounds and thousands of hours at the local gym: you just need a to start.

Take keepy-uppies, for instance. These are wonderful for all those budding freestyle footballers out there PLUS they are an excellent way of keeping fit, improving your balance and co-ordination. Keepy-uppies work your lower body's muscles group and are particularly useful for building strength in your quadriceps.

Skipping is another exercise that can be done easily at home – you only need a piece of rope! The exercise is an extremely effective aerobic exercise that works your cardiovascular system to the maximum, building strength and reducing cholesterol.

Tips for success:

- use technical/scientific vocabulary where appropriate
- use a combination of formal/informal language
- use descriptive vocabulary to make exercise sound appealing
- vary sentence length and structures.

Friday LO: to proof-read and edit

Today you have 3 tasks:

1. Finish your leaflet
2. Proof read your writing: check for spelling and punctuation errors
3. Edit your writing: Improve some of your words or rewrite sentences to make them even more persuasive.

Weekly Spelling

The following words are from word banks that you will begin to learn at secondary school. These particular words contain what are known as 'unstressed' vowels. That means when you speak the words, you don't sound out all the vowels e.g. *abominable* You don't really hear the *i* vowel when reading it. Your job for this week is to learn the words in the fourth list ie. from *generous* to *lettuce*

abandoned	conference	easily	generous	library	offering	similar
abominable	consonant	explanatory	geography	literacy	original	skeleton
alcohol	corporal	extra	grammar	literate	parallel	smuggler
animal	deafening	factory	heaven	literature	parliament	stationary
astronomy	definite	familiar	history	locomotive	poisonous	stationery
benefit	definitely	family	holiday	lottery	predict	telephone
boundary	describe	fattening	hospital	margarine	prepare	television
business	description	February	illiterate	marvellous	primary	vegetable
carpet	desperate	flattery	interest	mathematics	prosperous	voluntary
category	dictionary	formal	interested	medicine	reference	Wednesday
Catholic	difference	freedom	January	memorable	Saturday	widening
centre	different	frightening	jewellery	messenger	secretary	
company	disinterest	general	journalist	miniature	separate	
compromise	doctor	generally	lettuce	miserable	signature	

Weekly Maths

Monday

In this lesson, you will learn to convert fractions to decimals where the denominator is a power of 10. You will consolidate your understanding of place values of decimals and be able to use the place value of decimals when you round. Understanding place value in decimals is vital to calculating, rounding and converting with decimals.

Decimal fractions – tenths, hundredths and thousandths

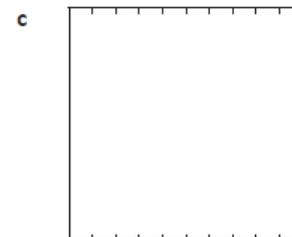
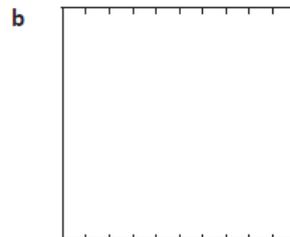
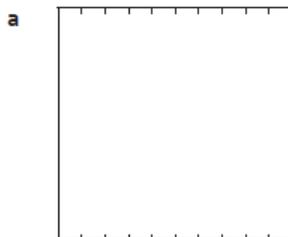
Common fractions and decimal fractions are related as they both show parts of a whole. In common fractions, we divide a whole into parts such as halves or sixths.

In decimal fractions, the whole is partitioned using the base 10 system – into tenths, then hundredths, then thousandths and so on.

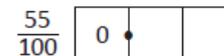
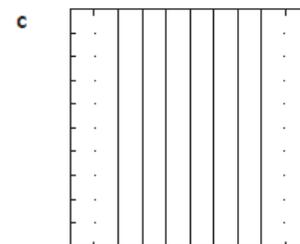
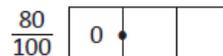
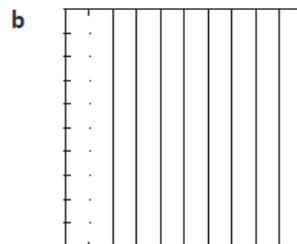
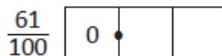
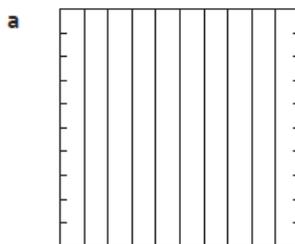
We use a decimal point after the ones number to indicate the end of whole numbers: 6.42

If the number has no whole numbers, we use a zero to make sure we don't miss the decimal point: 0.42

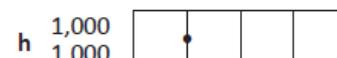
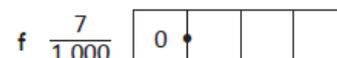
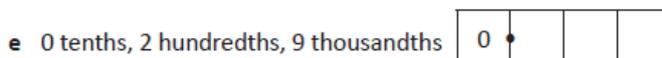
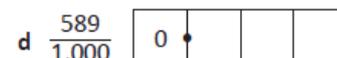
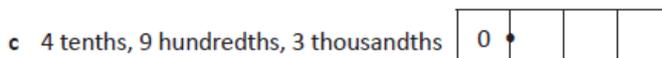
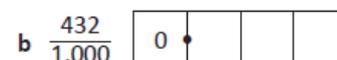
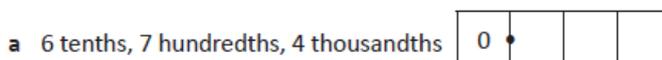
1 Divide these wholes into tenths and shade the specified amounts. Write each as a decimal fraction:

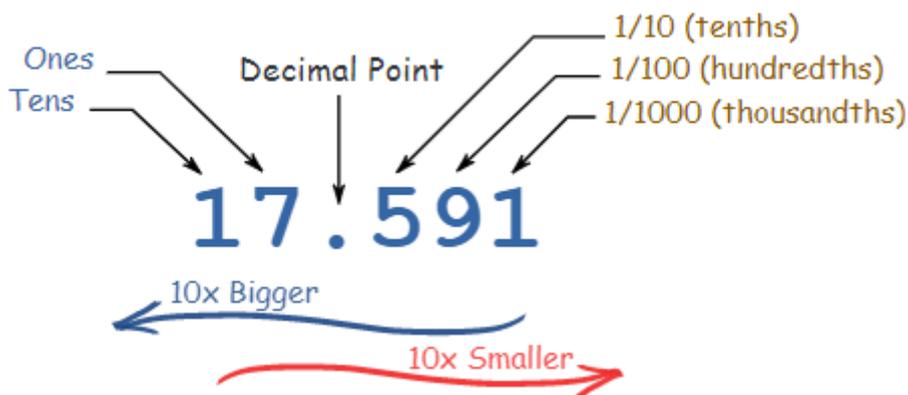


2 Now divide these wholes into hundredths and shade the specified amounts. Write each as a decimal fraction:



3 Express these as decimal fractions:





Decimal fractions – reading and writing decimals

When we write decimals we follow this place order:

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
			2	2	5	6

Numbers **before** the decimal point are whole numbers.

Numbers **after** the decimal point are parts of a whole number.

The further the digit is to the left in the number, the greater its value. The further it is to the right, the smaller its value.

- 1 What is the value of the digit in bold? Tick the correct column:

	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
a 5.89 2					•		
b 13.0 5					•		
c 763.2 2					•		
d 89.0 2 1					•		
e 100.00 1					•		
f 560.4 5					•		
g 312.9 5 6					•		

2 Read each number and write it as a decimal:

- a four ones, one hundred and twenty two thousandths _____
- b one hundred and eleven, and sixty five hundredths _____
- c three hundred, and forty two thousandths _____
- d four thousand, and twelve hundredths _____
- e twelve, and 13 thousandths _____
- f two hundred and thirteen, and forty-three hundredths _____

Watch out for the commas!
They indicate the end of
whole numbers.



CHECK

3 These answers are all close but incorrect. Write the correct answers:

- a twenty seven tenths is written as 0.27 No it's not, it's written as
- b forty eight hundredths is written as 0.048 No it's not, it's written as
- c 9000 thousandths is written as 0.009 No it's not, it's written as
- d eleven and 12 hundredths is written as 11.012 No it's not, it's written as
- e 167 hundredths is written as 16.7 No it's not, it's written as

3 Round the answers to the nearest tenth:

- a 301.25 (nearest 100th) = _____
- b 4.99 (nearest 100th) = _____
- c 67 (nearest whole number) = _____
- d 6,809.07 (nearest 100th) = _____

4 Look at the following meal options.

a Round each price to the nearest pound and total the estimated cost of each option below:

Choice 1		
Hamburger	£4.95	
Can of drink	£2.25	
Large chips	£1.15	
Total		

Choice 2		
Jacket potato with cheese	£7.95	
Hot chocolate	£0.95	
Salad	£2.98	
Total		

Choice 3		
Salad roll	£5.15	
Juice	£2.25	
Biscuit	£1.95	
Total		

b You have £10. Circle the choices you can afford.

Decimal fractions – rounding

We often round decimals to a particular place value. We do this to make the numbers easier to work with.

Look at 2.685. We can round this to the nearest whole number, tenth or hundredth.

Let's round it to the nearest tenth. To do this, we look at the number in the hundredths place. This is 8, which is closer to 10 than 1, so we round the tenth up. The rounded number is now 2.7

1 Round these numbers to the nearest tenth:

a 67.23 _____ b 48.07 _____

c 124.78 _____ d 90.14 _____

e 54.53 _____ f 7.06 _____

If the rounding number
is a 1 to 4, it rounds down.
If it is 5 to 9, it rounds up.



REMEMBER

2 Now round these numbers to the nearest hundredth:

a 58.127 _____ b 70.345 _____

c 45.007 _____ d 78.134 _____

e 89.036 _____ f 36.231 _____

Tuesday

When we say "percent" we are really saying "per 100". This lesson, you will use grids to understand percentages. Each square represent 1% if the grid is out of 100. What would be a half square as a percentage? You will consolidate some fractions equivalent of percentages. $\frac{1}{4}$ is 25%

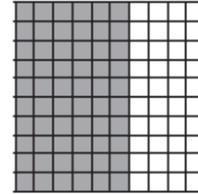
Decimal fractions – percentages

Percent comes from the Latin 'per centum' and means parts per hundred. It is expressed using the symbol %.

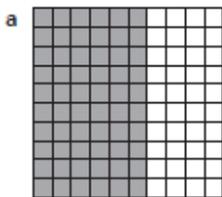
Here, 60% has been shaded. This is the same as 60 hundredths.

$$\frac{60}{100} = 0.60 = 60\%$$

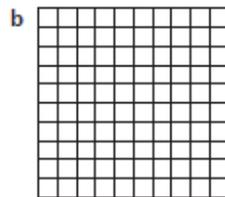
We commonly use percentages in sales – *25% off everything TODAY ONLY*; on tests – *I got 85%*; and when we are gathering and reporting on data – *78% of people surveyed love chocolate*.



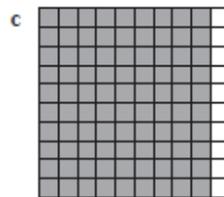
1 Fill in the missing values:



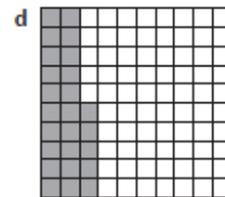
$\frac{60}{100}$	0.	%
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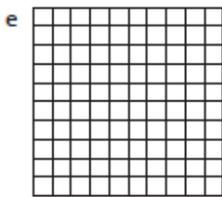
$\frac{30}{100}$	0.3	%
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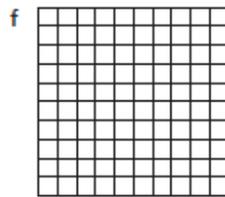
—	0.	90%
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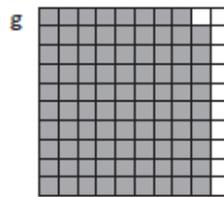
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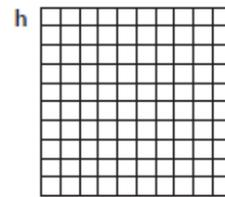
$\frac{45}{100}$	0.	%
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—	0.75	%
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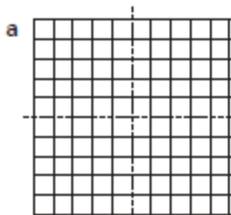
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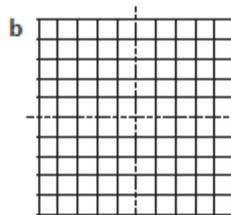
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It is useful to know some common percentages such as 25%, 50%, 75% or 100%.

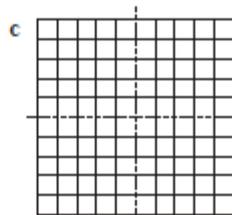
2 Shade the grids to show the following percentages:



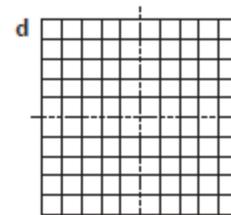
$\frac{1}{4}$	0.	%
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$\frac{1}{2}$	0.	%
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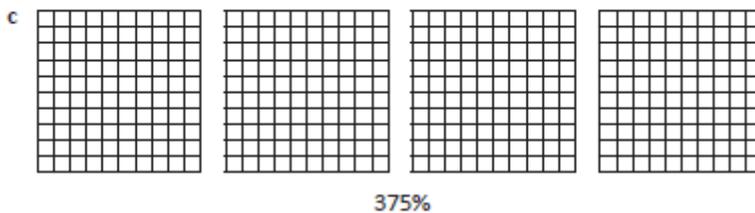
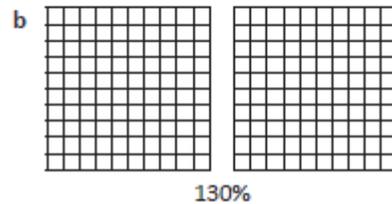
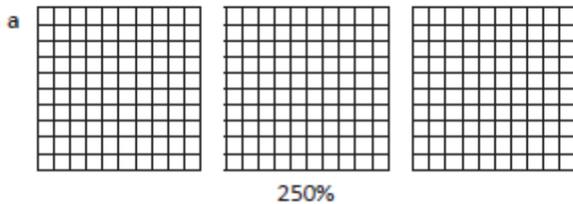
$\frac{3}{4}$	0.	%
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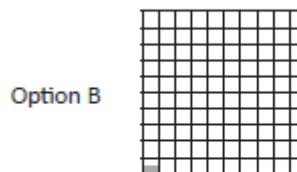
$\frac{4}{4}$		%
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Not all percentage values are whole numbers between 1 and 100. We can have such things as 300% growth or percentages that contain decimals such as 3.5%.

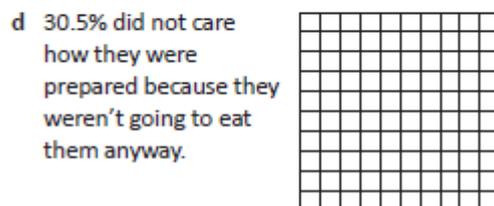
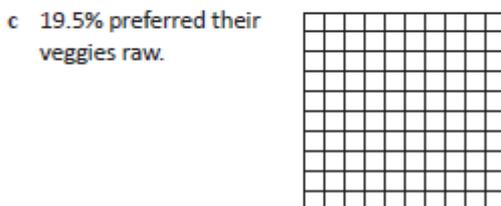
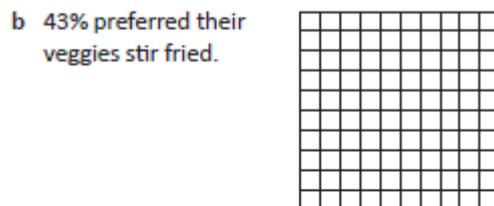
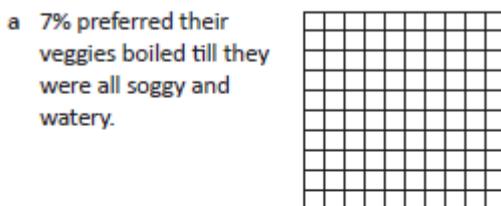
3 Shade the grids to show the following percentages:



4 How would you show half a percent? Circle the option you think is correct. Discuss your choice with a partner. Do they agree?



5 100 people were surveyed. They were asked to nominate their preferred way of eating vegetables. Shade the grids to show the survey results:



Percentage problems

solve



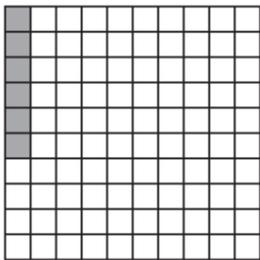
Getting ready

We have been using 100 grids to represent percentage, with each square representing 1%.



What to do

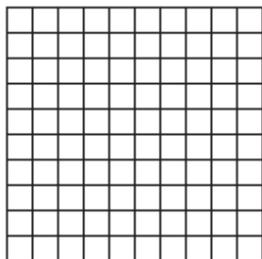
These grids are set up a little differently. Work with a partner to figure out what each square represents and then answer the questions.



Problem 1

These 6 squares have a value of 36.

- a What is the value of 1 square? _____
- b What is the value of the entire grid? _____
- c If 50% of the grid is shaded, what value is shaded? _____

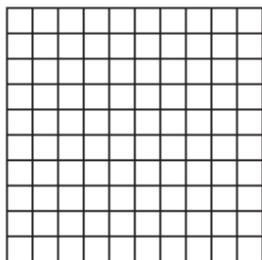


Problem 2

There are 140 corner shops in Smallville.

- a 40% of these stock your favourite Slush Puppy flavour. Use the grid to represent this information.
- b How many stores sell your favourite flavour? _____

300 people



Problem 3

- a If this grid represents 300 people, what does each square represent? _____
- b How many people are represented by ten squares? _____
- c 60 of the 300 people like watching sports. Represent this on the grid in red.
- d 225 people prefer playing sport to watching it. Represent this in green.

Check Mathletics

Wednesday

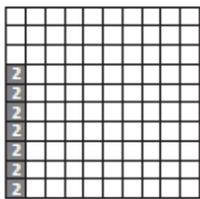
In this lesson, you will find percentages of a range of amounts. You will divide by a number to find a percentage, understanding why, for instance, you divide by 10 when working out 10% or divide by 4 when working out 25% which is $\frac{1}{4}$.

Fractions of an amount – percentage

We often have to find percentages in real life such as '40% off – today only!'

40% of 100 is $\frac{40}{100}$ or 40. A £100 item would be reduced by £40.

That's easy if everything costs £100 but how do we find percentages of numbers other than 100? There are a number of ways to do this – here are some of them.



Look at this 100 grid. It represents the total cost of this phone which is £200.

Each of the 100 squares represents 1% of this.

To find the value of a single square we divide: $£200 \div 100 = £2$

Each square or percent represents £2.

How do we then find 7% of £200? $7 \times £2 = £14$.



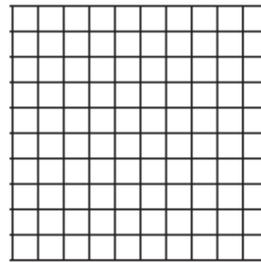
1 Use the 100 grid to calculate:

- a 5% of £200 is _____ b 20% of £200 is _____
- c 10% of £200 is _____ d 22% of £200 is _____
- e 15% of £200 is _____ f 50% of £200 is _____
- g If the store advertises a sale of 15% off the cost of the phone, what is the saving in pounds? _____

2 Use the 100 grid to calculate the following. 1 square represents _____ people:

300 people

- a 8% of 300 people is _____ b 50% of 300 people is _____
 c 25% of 300 people is _____ d 40% of 300 people is _____
 e 12% of 300 people is _____ f 80% of 300 people is _____
 g If 65% of the 300 people surveyed liked chocolate, how many people liked chocolate? _____



3 Patterns can also help us understand percentages. Use patterns to calculate. The first row has been done for you.

10% of 40 is _____ 4 _____	5% of 40 is _____ 2 _____	20% of 40 is _____ 8 _____
10% of 50 is _____	5% of 50 is _____	20% of 50 is _____
10% of 60 is _____	5% of 60 is _____	20% of 60 is _____
10% of 100 is _____	5% of 100 is _____	20% of 100 is _____
10% of 500 is _____	5% of 500 is _____	20% of 500 is _____
10% of 1,000 is _____	5% of 1,000 is _____	20% of 1,000 is _____
10% of 3,000 is _____	5% of 3,000 is _____	20% of 3,000 is _____

Fractions of an amount – percentage

We can use fractions to help us calculate percentages.

How can we calculate 25% of 80?

We know that 25% is the same as $\frac{1}{4}$. To find $\frac{1}{4}$ of 80 we divide by 4.

$$80 \div 4 = 20$$

$$25\% \text{ of } 80 \text{ is } 20.$$

$$\frac{1}{2} = 50\%$$

$$\frac{1}{4} = 25\%$$

$$\frac{1}{3} = 33\frac{1}{3}\%$$

$$\frac{1}{5} = 20\%$$

$$\frac{1}{10} = 10\%$$

$$\frac{3}{4} = 75\%$$

4 Use your knowledge of fractions to calculate the percentages:

a 25% of 120 is b 50% of 250 is c 20% of 50 is

$\frac{1}{4}$ of 120 = _____ $\frac{1}{2}$ of 250 = _____ $\frac{1}{5}$ of 50 = _____

$120 \div 4 =$ _____ $250 \div 2 =$ _____ $50 \div 5 =$ _____

d 25% of 16 is e $33\frac{1}{3}\%$ of 66 is f 75% of 80 is



REMEMBER

5

find these percentages:

- a 20% of 300 ml = b 35% of 280 ml = c 15% of 800 kg =
- d 6% of 70 km = e 25% of 150 ml = f 9% of £700 =
- g 15% of 400 = h 18% of 300 ml = i 90% of 1,000 =

6

The answer is 75.
the answer:

work out the percentages and tick all the squares that match

What is 25% of 300?	What is 75% of 100?	What is 10% of 750?	What is 15% of 55?
What is 45% of 180?	What is 35% of 300?	What is 50% of 150?	What is 20% of 375?

Extension

Fractions of an amount – finding discounts

We have to calculate discounts quite often in real life. Stores have many special offers and canny consumers can quickly calculate the savings to help them make decisions about their purchases.

1

How much would you save if the following discounts were offered? Choose a method to calculate:

 Plasma TV £1,000	 DVD £12 each	 Ticket £50 each	 Puppy £250
10% off _____	10% off _____	10% off _____	10% off _____
25% off _____	25% off _____	25% off _____	25% off _____
50% off _____	50% off _____	50% off _____	50% off _____
60% off _____	60% off _____	60% off _____	60% off _____

Thursday

Mastery Expert tip! "Understanding place value in decimals is vital to calculating with decimals. Visual and practical representations of the number have helped you to reinforce this, but it is also important to consistently refer to the value of each digit so that you are able to reason about the numbers they are working with, as well as finding the answers to the calculations.

Calculating – multiplying decimal fractions

How do we multiply decimal fractions using a written strategy?

First we estimate: $5 \times 3 = 15$. Our answer will be around 15.

3×5 tenths is 15 tenths. We rename this as 1 one and 5 tenths.

We write the 5 in the tenths column and move the one to the ones column.

3×4 is 12. We also add the 1.

$3 \times 4.5 = 13.5$

We check the answer against our estimate. Do they fit?

$$\begin{array}{r} 4.5 \\ \times 3 \\ \hline 13.5 \end{array}$$

1 Multiply these decimal fractions:

a

$$\begin{array}{r} 2.6 \\ \times 2 \\ \hline \square \end{array}$$

b

$$\begin{array}{r} 3.7 \\ \times 4 \\ \hline \square \square \end{array}$$

c

$$\begin{array}{r} 5.2 \\ \times 5 \\ \hline \square \square \end{array}$$

d

$$\begin{array}{r} 8.4 \\ \times 8 \\ \hline \square \square \end{array}$$

e

$$\begin{array}{r} 14.5 \\ \times 3 \\ \hline \square \square \end{array}$$

f

$$\begin{array}{r} 24.5 \\ \times 7 \\ \hline \square \square \square \end{array}$$

3.8×2 3 is a whole number

8 is 0.8 or 8 tenths $0.8 \times 2 = 1.6$

$3 + 1.6 = 4.6$

2 Now try these:

a
$$\begin{array}{r} 3.23 \\ \times \quad 4 \\ \hline \square \square \square \end{array}$$

b
$$\begin{array}{r} 5.33 \\ \times \quad 3 \\ \hline \square \square \square \end{array}$$

c
$$\begin{array}{r} 8.42 \\ \times \quad 8 \\ \hline \square \square \square \end{array}$$

d
$$\begin{array}{r} 7.44 \\ \times \quad 6 \\ \hline \square \square \square \end{array}$$

e
$$\begin{array}{r} 6.28 \\ \times \quad 4 \\ \hline \square \square \square \end{array}$$

f
$$\begin{array}{r} 3.45 \\ \times \quad 8 \\ \hline \square \square \square \end{array}$$

3 Use the templates to set up and solve these money problems:

a Yasmin buys 3 cartons of choc milk. Each carton costs £2.45. How much money does she spend?

$$\begin{array}{r} \square \square . \square \square \\ \times \quad 3 \\ \hline \text{£} \square \square . \square \square \end{array}$$

b Lisa buys 4 magazines. Each magazine costs £4.95. How much does she spend on magazines in total?

$$\begin{array}{r} \square \square . \square \square \\ \times \quad 4 \\ \hline \text{£} \square \square . \square \square \end{array}$$

c Omar wants to buy 3 games for his computer. Each game is £14.95. He has saved £45. Does he have enough money?

$$\begin{array}{r} \square \square \square . \square \square \\ \times \quad 3 \\ \hline \text{£} \square \square \square . \square \square \end{array}$$

Calculating – multiplying decimal fractions

We can also use renaming to multiply decimal fractions. Look at 4×3.6 :

$$\begin{array}{r} 3.6 \\ \times \quad 4 \\ \hline 14.4 \end{array}$$

tenths

3.6 can also be expressed as 36 tenths.

$$36 \times 4 = 144$$

Then we convert back to decimals:

$$144 \text{ tenths is } 14.4$$

4 Rename these decimal fractions then multiply. The first one has been started for you.

a $3 \times 2.7 = \square$

2.7 is 27 tenths

$$\begin{array}{r} 2.7 \\ \times \quad 3 \\ \hline \square \end{array}$$

$3 \times 2.7 = \square$

b $5 \times 3.4 = \square$

c $4 \times 9.7 = \square$

d $7 \times 1.9 = \square$

Calculating – multiplying decimal fractions

7 You and your friends are going to the movies and it's your shout. Look at the price list below and use a multiplication strategy of your choice to answer the following questions. Show your thinking:

a How much will it cost you for 4 "Under 13" tickets?

b Two of your friends each want a large drink and a medium popcorn. What will that cost you?



Ticket Prices	
Under 13	£10.50
Adult	£14.50
Refreshments	
Popcorn	S £2.50
	M £3.50
	L £4.50
Drink	S £2.50
	M £3.00
	L £3.50
Chocolate bar	£1.95
Choc topped ice cream	£3.25
Water	£1.95
Crisps	£2.95

c You and your other friend want a choc topped ice cream and a large drink each. What will that cost?

d Halfway through the movie, you are all dying of thirst and you go out and buy 4 bottles of water. You pay for them with a £20 note. How much change do you receive?

Which operations do I need to use here? Is it only multiplication?

e Use the refreshment price list to design and calculate the cost of a snack that would help get you through this Maths lesson.



Check Mathletics

Weekly Reading

We will not be setting a text this week for home learning. Your job is to continue your independent reading at home and then take some Accelerated Reader tests! Only a tiny amount have been carried out by year 6 in the last few months so we would like to see more! Here is the link:

<https://ukhosted3.renlearn.co.uk/1922510/Public/RPM/Login/Login.aspx?srcID=s>

Weekly Purplemash work

This week we will be using 2 Animate to create our own moving animations. Firstly, watch the tutorial in the top right corner (green triangle). This demonstrates how to use the program and shows the creation of an animation of a flower growing. Now experiment with the program – play around with creating simple animations and then try to add more detail. We are not going to tell you what to animate so try and be as creative as possible – maybe you could animate a story, or a spaceship taking off, or a street becoming busier as rain starts to fall. The possibilities are endless!